COASTAL CONSERVANCY

Staff Recommendation
June 25, 2015

SALT RIVER ECOSYSTEM RESTORATION PROJECT: PHASE 2B

Project No.11-025-02
Project Manager: Michael Bowen

RECOMMENDED ACTION: Authorization to disburse up to $200,000 to the Humboldt County Resource Conservation District to implement Phase 2B of the Salt River Ecosystem Restoration Project.

LOCATION: Ferndale, Humboldt County

PROGRAM CATEGORY: Resource Enhancement

EXHIBITS

Exhibit 1: Project Location and Site Map

Exhibit 2: Staff Recommendation October 21, 2010

Exhibit 3: Staff Recommendation: May 19, 2011

Exhibit 4: Project Letters

RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31251 through 31270 of the Public Resources Code:

"The State Coastal Conservancy hereby authorizes the disbursement of up to two hundred thousand dollars ($200,000) to the Humboldt County Resource Conservation District ("RCD") to implement Phase 2B of the Salt River Ecosystem Restoration Project, subject to the following conditions:

1. Prior to the disbursement of funds, the RCD shall submit for review and approval by the Executive Officer of the Conservancy:
   a. A work program, including final design plans and specifications, schedule and budget for construction.
   b. All contractors to be employed for the project.
   c. Evidence that all necessary permits and approvals have been obtained.
   d. A signing plan for the project acknowledging Conservancy funding.

2. In carrying out the project, the RCD shall comply with all applicable conditions and mitigation and monitoring measures for the project that are identified in the *Final Environmental Impact Report: Salt River Ecosystem Restoration Project*, *Appendix F*, and any conditions, mitigation or other measures required by any permit or approval for the project."

Staff further recommends that the Conservancy adopt the following findings:

"Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed project is consistent with the current Project Selection Criteria and Guidelines.
2. The proposed authorization is consistent with the purposes and objectives of Chapter 6 of Division 21 of the Public Resources Code, regarding the enhancement of coastal resources.
3. The Conservancy independently reviewed the *Final Environmental Impact Report: Salt River Ecosystem Restoration Project,* certified by the RCD on February 24, 2011, pursuant to the California Environmental Quality Act, public comment to the FEIR, and the Mitigation Monitoring and Reporting Program. At its May 19, 2011 meeting, the Conservancy found that the project as designed avoids, reduces or mitigates the potentially significant environmental effects to a less-than-significant level, and that there is no substantial evidence based on the record as a whole that the project may have a significant effect on the environment, as defined in 14 Cal. Code Regulations Section 15382. The project remains consistent with the May 19, 2011 authorization."

PROJECT SUMMARY:

Staff recommends the Conservancy authorize disbursement of up to $200,000 to the Humboldt County Resource Conservation District ("RCD") to implement the Salt River Ecosystem Restoration Project Phase 2B in Ferndale, Humboldt County. Provision of funding by the Conservancy will enable the RCD to implement the project's next phase of construction this summer. Doing so will also help the Ferndale agricultural community address longstanding problems of flooding and provide substantial enhancement to the degraded natural resources of the area. This particular component is especially important to relieving flooding to City, county and private infrastructure including the Ferndale Wastewater Treatment Plant, Port Kenyon Road, Port Kenyon Bridge and about 20 private residences along Port Kenyon Road.

The Salt River Ecosystem Restoration Project is comprised of four components: wetland and upland restoration on the 440-acre Riverside Ranch property; erosion-reduction projects on private lands in the surrounding Wildcat Hills; excavation of a restored Salt River channel, also on private lands, to improve habitat and flood conveyance; and long-term adaptive maintenance, management and continued enhancement of the restored project area through an adaptive management plan. Implementation of this expansive project has been divided into several phases (Exhibit 1).

Phase 1, restoration of the Riverside Ranch property, concluded in 2013 at a cost of approximately $8 million. Phase 1 included the Riverside Ranch estuary restoration component of the project, as well as some 2.5 miles of channel excavation in the lower reaches of the Salt River corridor. This restoration site has already yielded dramatic results, with remarkably high

biological response in the form of re-colonization by Coho salmon, Tidewater goby and numerous aquatic and terrestrial species.

Phase 2 of the project comprises roughly five miles of channel excavation, hauling of excavated material, fencing and re-vegetation. It begins at the boundary of the Riverside Ranch and will extend eventually nearly one mile above the confluence of Williams Creek and the Salt River. Accordingly, Phase Two work will span several years and involve sub-phases.

Phase 2A-2014, completed in 2014, involved channel excavation and restoration of approximately 1.5 miles of restored channel, floodplain and riparian habitat along the historic Salt River channel. Restoration work in 2014 also included realignment of Reas Creek and re-connection of the Meridian Road drainage just upstream of the Dillon Road Bridge. Phase 2A also included the restoration of the Toste Parcel, acquired through the assistance of the Coastal Conservancy, for provision of additional enhancement opportunities and future public access, and re-vegetation of the site. The 2014 construction season resulted in excavation of approximately 80,000 cubic yards of sediment which was hauled off and applied as an agronomic amendment to local dairy pastures in the area.

Phase 2B-2015, the subject of this proposed authorization, will continue work upstream of the 2A project toward Francis Creek. Specifically, the project includes the following elements:

1) Constructing approximately 2,000 linear feet of full channel and floodplain (~ 50,000 c/y of excavation) to improve drainage around Port Kenyon Road and construct related pilot channels to connect to the existing drainages along Port Kenyon road and around Ferndale's wastewater treatment facility.

2) Installing a rock grade control structure at the upstream extent of the project footprint.

3) Replacing the Francis Creek crossing on Port Kenyon Road with a concrete arch span.

4) Constructing pilot channels to convey Francis Creek water and sediment to a low area located within the NRCS floodplain easement (Lake Vevoda)

5) Constructing pilot channels (~11,000 c/y) to convey clean water from Lake Vevoda to the newly-constructed Salt River channel.

The segment of channel just below Francis Creek has the highest volume of sediment per linear foot in the total project area. This equates to high costs to excavate and haul. The 2,000 linear feet extending from the end of last year's work to a location well below Ferndale's wastewater treatment plant will generate approximately 50,000 cubic yards of sediment (More than ½ the sediment as last year in 1/3 of the distance) at a budgeted cost of $15/cy.

Eventually, a total of 7.5 miles of Salt River channel will be restored; extending some five miles from Riverside Ranch to nearly one mile above the confluence of Williams Creek, an additional 3.5 miles from the stopping point in 2014.

The RCD is the California Environmental Quality Act (CEQA) lead agency and has served as the project lead for nearly 25 years. Its close relationship with the agricultural community has enabled it to advance a large, challenging, and at times controversial project in a fashion that has generated enthusiasm from the agricultural, environmental and regulatory communities. Now, after years of effort, design and fundraising, the RCD has completed major components of the project and is prepared to continue construction this summer.

Site Description: The project is located near Ferndale, Humboldt County (Exhibit 1). The area is extensively described in an earlier staff recommendation (Exhibit 2). The area and project, notably the flooding and ponding conditions prompting the proposed project, are also extensively analyzed in the Final Environmental Impact Report that was reviewed by staff and for which findings were issued by the board May 19, 2011 (Exhibit 3). Since the Board last reviewed this project, however, two phases of implementation have been completed and drainage and habitat conditions have improved markedly.

Project History: The Conservancy's commitment to the Salt River Ecosystem Restoration project dates back to the late 1980s. At that time the Conservancy provided its first grant to the RCD to explore alternatives for alleviating flooding in the Ferndale area. That history is described in detail under the "project history" section of the staff recommendation for the final design, October 21, 2010 (Exhibit 2).

Since that time, the Conservancy has disbursed nearly $2.5 million towards advancing this project, including feasibility studies, design work, engineering and hydrology, acquiring property, securing public access, and funding implementation. In addition, staff has dedicated months if not years to developing this multi-benefit project. Since the award of the final design grant and implementation grant (Exhibits 2 and 3) the RCD has succeeded in bringing two major construction seasons to fruition, and achieved better than expected results for agricultural enhancement and ecosystem restoration.

PROJECT FINANCING

Coastal Conservancy*	$200,000
California Department of Fish and Wildlife (County FRGP)	$458,930
California Department of Fish and Wildlife (RCD FRGP)	$198,500
California Department of Water Resources	$1,654,955
City of Ferndale	$76,000
Total Project Costs	$2,588,385

*The Conservancy funds represented in this project budget do not include previous grants from the Conservancy for related project acquisition and planning. See Exhibit 3 for additional detail.

Funding for the proposed project is expected to come from the Conservancy's FY 2011/12 appropriation from the Habitat Conservation Fund ("HCF") (under the "California Wildlife Protection Act of 1990" – Proposition 117). The Conservancy is authorized to use HCF monies for the acquisition, restoration, or enhancement of riparian habitat. (Fish & Game Code 2786(f)).

The 2011-12 appropriation of HCF funds was derived from the sale of bonds from the Disaster Preparedness and Flood Protection Bond Act of 2006 (Proposition 1E). Proposition 1E authorizes the use of these funds for the purposes of carrying out disaster preparedness and flood prevention projects (Section 5096.820 of the Public Resources Code). Section 5096.825 of the Public Resources Code states that these funds may be spent for the protection, creation, and enhancement of flood protection corridors through various actions, including the acquisition of interests in real property to enhance flood protection corridors while preserving agriculture

(subsection (a)); the construction of new levees (subsection (b)); the setting back of existing levees (subsection (c)); the flood proofing of structures (subsection (d)); and the provision of incentives for maintaining agricultural use of property in flood plains (subsection (e)). Consistent with the overall purposes of Section 5096.825, the project will restore the historic channel and flood plain of the Salt River thus increasing the flood carrying capacity and improving the hydraulic function of the Salt River. Earlier phases of construction have already resulted in a return of such conveyance to conditions of at least fifty years ago. Consistent with subsection (a), the project helps the State reestablish jurisdiction over former tidelands while preserving agriculture. Consistent with subsection (b), the project provides increased elevation along river banks that function as improved levees. Consistent with subsection (c), the project removes informal levees. Consistent with subsection (d), the project provides flood proofing for the wastewater treatment facility and various roads and dairies. Consistent with subsection (e), the project enhances agricultural productivity in the local floodplain.

Section 5096.820(b) stipulates that Proposition 1E funds should be expended on projects that secure the maximum feasible amounts of non-state matching funds. Consistent with this requirement, the grantee has attracted $76,000 from the City of Ferndale, a significant contribution from a City whose population is 1,362. While some funding remains to be raised for future phases of the project the grantee is actively engaged in fundraising for the project and construction of the project will proceed in phases with independent utility, such that habitat and other improvements will be beneficial even in the event of delays in implementation of the full project.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

The proposed project would be undertaken pursuant to Chapter 6 of the Conservancy's enabling legislation, Public Resource Code Sections 31251-31270, and remains consistent with this Chapter as described in the previous staff recommendations, Exhibits 2 & 3.

CONSISTENCY WITH CONSERVANCY'S STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):

The project was found consistent with earlier Strategic Plans, and remains consistent with the Conservancy's 2013-2018 Strategic Plan in the following respects:

Consistent with **Goal 4, Objective B** the proposed project will protect working lands through a project and associated landowner access agreements that restore hydraulic connectivity throughout the Salt River, thereby improving habitat while also alleviating nuisance flooding and ponding that adversely impact agricultural production in the area.

Consistent with **Goal 4, Objective C**, the project will protect, preserve and restore nearly 1,000 acres of fish and wildlife corridors between core habitat areas along the coast and from coastal to inland habitat areas by restoring aquatic habitat function along the Salt River and its tributaries.

Consistent with **Goal 5 Objective B** the project as a whole will restore and enhance 808 acres of coastal habitat, including 334 acres of tidal salt and brackish marsh, 40 acres of mudflat/high marsh ecotone, 125 acres of riparian forest/scrub, 32 acres of freshwater wetland habitat, 76 acres of grassland, and more.

Consistent with **Goal 5 Objective D** the project as a whole will restore a once-significant terrestrial and aquatic wildlife corridor between inland habitat areas and the coast. Restoring 7.7 miles of the Salt River, including a significantly enhanced riparian corridor, will provide fish passage and terrestrial migration where it has not existed for decades. This phase in particular will complete .38 miles of that distance.

Consistent with **Goal 5, Objective G**, the project will improve water quality to benefit coastal and ocean resources by reducing erosion, aggradation and the threat of episodic delivery of vast sediment supplies into coastal rivers. Aging culverts are notorious for failing during significant storm events, delivering substantial sediment pulses adverse to fishery resources in the process. The proposed project will prevent that outcome by ensuring that the active stream channel and accompanying sediment load are matched.

Consistent with **Goal 6 Objective B** the project will significantly improve and enhance hundreds of acres of potentially verdant pasture by reducing flooding and ponding association with the current hydraulic dysfunction of the Salt River.

CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA & GUIDELINES:

The proposed project is consistent with the Conservancy's Project Selection Criteria and Guidelines, last updated on October 2, 2014, in the following respects:

Required Criteria

1. **Promotion of the Conservancy's statutory programs and purposes:** See the "Consistency with Conservancy's Enabling Legislation" section above.
2. **Promotion and implementation of state plans and policies:** The proposed project is consistent with the following state plans and policies concerning restoration of riparian habitat and increasing natural production of the coastal salmon populations that depend upon that habitat for certain life history stages.

    a. The proposed project is consistent with the recommendations for planning, acquisition and habitat enhancement made in the report Natural Resources of the Eel River Delta, published by the California Department of Fish and Game in November 1974. Among other things, the report recommended higher levels of protection for the Delta's natural resources, restoration and floodplain enhancement efforts and acquisitions that would help advance ecosystem restoration –though they didn't use that expression—as a "highest and best use" of the Delta.

    b. While it doesn't specifically address the Eel Delta, the *Steelhead Restoration and Management Plan for California* of February 1996 features the Eel River and underscores the importance of reversing watershed disturbance through restoration activities. Focusing primarily on the introduction of Pikeminnow to the Eel River, the study's author knew and could have noted that juvenile

salmonids are safer from predation in the Delta due to the fact that Pikeminnow cannot tolerate the high salinity of the Delta during summer months. Therefore, the Delta provides a refuge for juvenile salmonids, and other species, in an altered system. Thus, the proposed project specifically addresses the issues raised in the Steelhead Plan through alternative and likely more feasible and successful means than the chemical treatments recommended in the plan. Finally, and thematically, the plan advises that "(h)abitat improvement projects should be focused on the many areas throughout the State where steelhead habitat is severely degraded and restoration work is sorely needed." This is certainly true in the highly reclaimed Delta where opportunities abound to support the growth and survival of juvenile salmonids and other marine and freshwater species.

c. More recently, and more specifically, the proposed project is consistent with the California Fish and Game issued *Recovery Strategy For California Coho Salmon* of February 2004 in that the highest priority recommendation of that plan relating to the Eel Delta is to "(e)ncourage the Salt River Local Implementation Plan to incorporate coho salmon-friendly measures, in cooperation with the agencies." Advised in the early stages of project development, the Humboldt RCD has since done so and developed the proposed project in a way that has yielded impressive results in the form of increased coho salmon abundance on newly restored Riverside Ranch. Additionally, the plan recommends that "(i)n cooperation with agencies and landowners, plan to re-establish estuarine function, restore and maintain historical tidal areas, backwater channels and salt marsh" (ER-HU-12 pg. 8.27).

d. The project is consistent with the *Final Recovery Plan for the Southern Oregon/Northern California Coast Evolutionarily Significant Unit of Coho Salmon* (*Oncorhynchus kisutch)* (National Marine Fisheries Service 2014). That report highlights the statewide importance of the Eel River population of Coho salmon and adds that "(t)he tributaries and estuary located within this population may serve as essential non-natal rearing habitats for all populations in the Eel River watershed" (SONCC 26-7). The report states that "(i)n the estuary, salt marsh was drained and riparian vegetation cleared to convert tidelands to pasture...Tideland reclamation and the construction of dikes and levees have changed the function of the estuary considerably. Slough and creek channels that once meandered throughout the delta are now confined by levees, sufficiently slowing flow to a point that many have become filled with sediment. Remnant slough channels are visible throughout the delta. The estuary and tidal prism have been reduced by over half of their original size (CDFG 2010b)." (SONCC p. 26-4). Top recommendations from the report include: 1) setback or remove dykes and levees; 2) restore salt marsh and tidal sloughs, and; 3) reconnect tidal channels and wetlands.

e. Finally, the project is consistent with the California Water Action Plan, a collaborative effort of the California Natural Resources Agency, the California Environmental Protection Agency, and the California Department of Food and Agriculture. This plan was developed to meet three broad objectives: more

reliable water supplies, the restoration of species and habitat, and a more resilient, sustainably managed water resources system. It lays out the state's challenges, goals and actions needed to put California's water resources on a safer, more sustainable path. The plan identifies ten overarching strategies to protect our resources, include two particular to this project that the Conservancy can help implement: 4) *Protect and restore important ecosystems (restore coastal watersheds and strategic coastal estuaries to restore ecological health and nature system connectivity to benefit local water systems and help defend against sea level rise, eliminate barriers to fish migration)* and 7) *Increase flood protection (encourage flood projects that plan for climate change and achieve multiple benefits).*

3. **Consistency with purposes of the funding source:** See the "Project Financing" section above.
4. **Support of the public:** The proposed project enjoys the support of the Humboldt County Farm Bureau, Friends of the Eel River, the Salt River Watershed Council, U.S. Congressman Jared Huffman, State Senator Mike McGwire, Assemblyman Jim Wood, the County of Humboldt, and many resource agencies including the Department of Fish and Wildlife, NOAA Fisheries and others. (See Exhibits 2-4).
5. **Location:** The project site is within the coastal zone, and will benefit numerous coastal resources by providing coastal salmon populations with sufficient floodplain habitat to fulfill their life history patterns.
6. **Need:** Without grant funding, the HCRCD will be unable to maintain its momentum and advance the project this construction season.
7. **Greater-than-local interest:** See Exhibits 2-3.
8. **Sea level rise vulnerability:** The floodplain enhancement component of the project will experience sea level rise, but the phase funded with this authorization will not be threatened. Moreover, restoring hydraulic conveyance within the watershed will help the habitat and community adapt well to sea level rise. All project elements will be designed so as to withstand projected sea level rise levels that would impair access in the area. The restored habitat areas face no imminent threat from increasingly saline conditions and would in fact provide increased estuarine habitat benefits under a sea level rise scenario.

Additional Criteria

9. **Urgency:** Flooding and sediment deposition continues to occur on a regular basis above the completed reach of the project area. Residents are negatively impacted with every rain event, as are City and County infrastructure. Without Conservancy funding, there is a risk that improvements may not get constructed this year. HCRCD is preparing to release bids for this year's work in mid-May. The RCD will include a contingency in their bid package that reflects funding uncertainties, but they hope for sufficient, reliable funds to cover this season's expected construction costs. The largest funding contract covering work for this season is with Department of Water Resources (DWR). There has been an internal issue at DWR that has slowed reimbursement and retention payments owed for construction completed last season. Additionally, there are currently insufficient funds to cover ancillary

costs for construction management and inspection and Labor Compliance. Conservancy assistance will help bridge these gaps and ensure that the RCD, having gone to bid, can go to construction this season, as planned.

10. **Resolution of more than one issue**: See Exhibits 2-3.
11. **Leverage**: See the "Project Financing" section above.
12. **Conflict resolution**: See Exhibits 2-3.
13. **Readiness**: Having successfully completed two major construction seasons, the Humboldt RCD has demonstrated its ability and desire to continue the project timely and successfully.
14. **Realization of prior Conservancy goals**: "See "Project History" above."
15. **Cooperation**: The project has enabled the Salt River Watershed Council to evolve from a relatively informal idea to a formal group that intends to take over the long-term management of the project once completed. This is an extraordinary undertaking since it involves integrating CEQA and permitting requirements with the existing Adaptive Management Plan and maintaining channel and ecological functions with traditional agricultural tools and approaches. This unique partnership between the agricultural and regulatory communities will hopefully serve as a model for protecting and enhancing agriculture in the coastal zone while also providing for the enhancement of natural resources there
16. **Vulnerability from climate change impacts other than sea level rise:** According to modeling projections that forecast temperature change and other impacts associated with climate change, Humboldt County is one of the rare areas where major habitat disruptions resulting from climate change are not anticipated. Relative to other areas of the state and nation, the proposed project is not as vulnerable to climate change effects.

CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:

The proposed project will result in the implementation of a project to enhance habitat and agricultural productivity within the Coastal Zone generally, and within the jurisdiction of Humboldt County's Local Coastal Plan Eel River Area particularly.

As described in the FEIR, pp. 3.8-1 through 3.8-26, the proposed project adheres to the Humboldt LCP guidelines.

COMPLIANCE WITH CEQA:

The project activities proposed for funding under this authorization, including the potential environmental impacts and required mitigation measures, remain unchanged from those approved by the Conservancy at its May 19, 2011 meeting (see Exhibit 3). The proposed authorization remains consistent with the CEQA findings adopted by the Conservancy at that meeting. No further environmental documentation is required under CEQA.